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REMARKS

Claims 1-7 and 18-20 are all the claims pending in the application. Applicant gratefully acknowledges that the election requirement has been withdrawn. Applicant indicates that the PTO has moved the above application from art unit 3641 to art unit 1755 with a different examiner. Clearly, this change may have potentially re-set the prosecution of this case back, that is, not advanced prosecution, particularly in view of the recent rejection covering previous reference combinations overcome by Applicant, and discussed below. Finally, Claims 1-7 and 18-20 stand rejected on prior art grounds. Applicant respectfully traverses the prior art rejections based on the following discussion.

I. The Prior Art Rejections

Claims 1-7 and 18-20 are rejected under 35 U.S.C. Section 103(a) as being unpatentable over Baginski, et al. ("Baginski")(U.S. Patent No. 6,772,692) in view of Hee Cheul Choi, et al. ("Choi")(Positive and Negative Photopatterning of Metal Oxides on Silicon via Bipolar Electrochemical Deposition, Published on the Web, 9 August 2001) in further view of Faber, et al. ("Faber")(U.S. Patent Application No. 2001/0030007 A1).

A. The Rejection Based on Baginski in view of Choi in further view of Faber

First, Applicant acknowledges that the Office Action found persuasive Applicant's argument regarding the rejection of Barginski in view of Choi advanced in the amendment of 7 May 2007. Accordingly, an attempt to add an additional reference, that is, Faber, to an underlying baseline combination, which is confirmed as being an

ineffective combination by the PTO, cannot now fix this ineffective combination. Nonetheless, and to facilitate prosecution of this case, Applicant submits the following comments as well as providing confirming changes to independent claim 1, as indicated above. (See Office Action, Page 2, lines 8-9).

Regarding independent claim 1, the references, separately or in combination, fail to disclose, teach or suggest a reason or motivation to be combined.

The new reference, Faber, pertains to ignition elements and finely graduatable ignition components for improved ignition sensitivity/insensitivity without substantially impairing the ignition delay time. (See Faber at Abstract; and Column 1, Paragraphs [0002]-[0004]).

As previous discussed in the amendment of May 7, 2007, nothing within Baginski, which pertains to an improved semiconductor bridge device for initiating a reaction with a relatively high output energy while reducing accidental firing with a reduced sensitivity, suggests a general white light promoted electrochemical metal oxide photopatterning procedure on silicon to produce transparent and semi-transparent thin films for technological devices involving spatial definition as disclosed in Choi. As indicated above, the current Office Action indicates that this argument was persuasive.

Further, nothing within Baginski nor Choi, suggests ignition elements and finely graduatable ignition components for improved ignition sensitivity/insensitivity without substantially impairing the ignition delay time. Thus, Baginski teaches away from being combined with another invention, such as, Choi as well as Faber. (See Baginski at Abstract; Column 1, lines 15-67; and Choi at Abstract; Paragraph 1, lines 1-14).

To be sure, in part, Baginski requires formation of a single, relatively uniform laminate layer of a composite overcoat 114 (including 125), whereas Choi (as indicated below) teaches formation of a single photopatterned layer, which incompletely covers a lower silicon substrate. In further contrast, Faber teaches using two distinct material layers to surround an ignition pellet, that is, completely surrounding an ignition pellet element with a first ignition component and coating the first ignition component with a power component. Thus, these three technologies are structurally and functionally distinct.

Therefore, as indicated above, one of ordinary skill in the art of electro-explosive devices would not have combined Baginski and Choi absent hindsight. In addition, and using the most recent and more relaxed interpretation of obviousness under KSR v. Teleflex, No. 04-1350, 550 U.S. __ (April 30, 2007), one of ordinary skill in the above arts would not have further combined Faber with Baginski and Choi absent hindsight, particularly with Choi pertaining to the art of transparent thin film technology for electronic applications, such as, ultrafast color displays.

Second, even assuming that the references would have been combined, Baginski, as indicated above, does not disclose, teach or suggest the features of independent claim 1, and related dependent claims 2-7 and 18-20, including reacting the metal layer including the metal with a reactant for forming a primary explosive layer. (See Application, Page 4, lines 13-27; Page 8, lines 4-11; and Figures 1A-4B).

Indeed, Applicant agrees with the express statements in the Office Action of December 6, 2006, that Baginski does not disclose or teach the features of claim 1, including depositing a metal layer in situ on the substrate layer. Further, in the

amendment of May 7, 2007, Applicant asserted that Baginski did not specifically disclose an explosive layer of nickel azide nor did the Office Action of December 6, 2006, provide such a citation as required. As indicated above, the Office Action of September 6, 2007, expressly indicated that the previously provided arguments against the combination of Baginski and Choi were found persuasive. These arguments included the noted deficiencies of Baginski, above, and Choi, below, in disclosing or suggesting elements of independent claim 1.

Today, Baginski is still deficient, and certainly does not disclose, teach or suggest, including reacting the metal layer including the metal with a reactant for forming a primary explosive layer as recited in claim 1 above. Please note, the current express statements regarding the Baginski reference in the Office Action of September 6, 2007, conflict with the assertions regarding the deficiencies of Baginski as cited above from the previous Office Action of December 6, 2006. Accordingly, Applicant further submits that these new current express statements are inaccurate particularly as this Office Action of September 6, 2007, also indicates agreement with Applicant's arguments regarding the deficiencies of Baginski and Choi, and the related combination. (See Office Action, September 6, 2007, Page 3, lines 5-21).Section 6, Page 4, line 7-Page 5, line 4).

Choi is still also deficient.

For emphasis, as previously discussed in the amendment of May 7, 2007, Figures 1-3 and Table 1 of Choi merely disclose, as discussed above, a general white light promoted electrochemical metal oxide photopatterning procedure on n-or p-type Si, which permits negative and positive masking. In particular, a process 4P provides for bipolar electrochemical deposition performed where a short anodic current is applied to a

silicon surface while light is illuminated through a masking to produce deposition of metal oxide in the desired patterning. Contrary to the assertion in the Office Action of December 6, 2006, the process 4P as well as the conventional 2P process, and the 2 and 4 non-photopatterning deposition of metal oxides on silicon processes all involve in-situ heating at 60 degrees Celsius during metal oxide deposition (what the Examiner attempts to analogize to Applicant's step of depositing a metal layer of metal in situ on the substrate layer). Accordingly, Choi is more structurally and functionally equivalent to photopatterning a layer of metal oxide on select locations of a silicon substrate, which appears to occur while being heated in-situ at 60 degrees Celsius, not in-situ deposition of a metal layer on a substrate layer, which occurs after formation of a substrate layer but prior to reacting the metal layer as claimed by Applicant. Therefore, Choi still does not disclose or suggest depositing a metal layer of a metal in situ on a substrate layer. (See Office Action, Section 6, Page 5, lines 4-6; Choi at Abstract; Page 1, Paragraph 1, lines 10-14; Page 2, Paragraph 2, lines 1-14; Table 1; Page 3, Paragraph 3, line 1-Paragraph 4, line 10; and Figures 1-3).

To be sure, and as discussed in the previous Amendments of September 20, 2006 and May 7, 2007, Applicant discloses a method of making a thin film explosive detonator, which includes, in part, depositing a metal layer of a metal in situ on a substrate layer, and reacting the metal layer to form an azide based primary explosive layer as claimed. As mentioned, Choi is focused on transparent thin film formation using in-situ heating of metal oxides not azide based explosive layer formation using in-situ deposition of metal on a substrate layer, such as, silicon. Therefore, Choi certainly did not disclose, teach or suggest, including depositing a metal layer of a metal in situ on a

substrate layer nor the primary explosive layer includes an azide-based explosive salt with a predetermined thickness as claimed by Applicant. Today, Choi is still deficient, and certainly does not disclose, teach or suggest, including reacting the metal layer including the metal with a reactant for forming a primary explosive layer as recited in claim 1 above (See above).

Faber is also deficient.

Instead, Faber merely discloses ignition elements and finely graduatable ignition components for improved ignition sensitivity/insensitivity without substantially impairing the ignition delay time. In particular, Faber discloses a conventional ignition element in a form of an ignition pellet including two elongated electrically conducting pole carriers. The ignition pellet is dipped into an ignition component suspension, that is, a filament component, so that the first ignition component surrounds a connecting filament of the ignition element. The dipping process is repeated until adequate amounts of the filament component have been applied. Between dippings, the solvent is allowed to evaporate. After the filament component is applied, a power component is applied in a same manner as a coating around the filament component. The filament component includes 100 parts of a heat-conducting primer, "preferably," silver-azide, and 1-6 parts of a binder, such as polyvinyl acetate. The power component includes at least one ingredient that produces hot reaction particles, an oxidant and a binder. Importantly, the Faber process is a conventional dipping and evaporation process for applying two different material layers on the connecting filament substrate without reacting any layers, let alone, reacting a metal layer to form a primary explosive layer like Applicant's claimed invention.

From a materials perspective and a structural perspective, Faber is further distinct from Applicant's claimed invention. Faber discloses that the first layer is the filament component layer, which includes silver azide (what the Office Action analogizes to Applicant's explosive layer). Accordingly, and contrary to the assertion in the Office Action, the filament component layer is more analogous to Applicant's metal layer, which is deposited on a substrate layer, as the filament component is used to surround the connecting filament substrate. Therefore, the filament component layer, which surrounds the underlying connecting filament substrate, is structurally similar to Applicant's metal layer deposited on the underlying substrate. Nonetheless, the filament component layer is composed of different materials than Applicant's metal layer. To be sure, the filament layer includes the silver azide, whereas Applicant's metal layer includes a metal without any azide material. Thus, Faber does not teach or suggest reacting the metal layer including the metal with a reactant for forming a primary explosive layer like Applicant's claimed invention. (See Faber at Abstract; Column 1, [0001] and [0004]; and Column 1, [0006]-Column 3, [0009]).

Finally, and for emphasis, Applicant discloses, in part, reacting the metal layer including the metal with a reactant for forming a primary explosive layer, whereas Faber only discloses a dipping and evaporation process without reacting any metal layer, let alone, reacting the metal layer including the metal with a reactant for forming a primary explosive layer. Again, please note, Applicant's primary explosive layer, which includes an azide-based explosive salt, is the resultant layer of Applicant's process, whereas Faber's silver azide material is part of the filament component layer situated between the connecting filament substrate and the power component. Accordingly, an attempt to

substitute Faber's filament component layer, including the silver azide, for Applicant's metal layer with a metal but without any azide material, would likely fail and destroy the function of Applicant's invention. Therefore, Applicant's invention is structurally and functionally distinct from Faber. Thus, Applicant traverses the assertions regarding the Faber reference.

For at least the reasons outlined above, and using the most recent and more relaxed interpretation of obviousness under KSR v. Teleflex, No. 04-1350, 550 U.S. __ (April 30, 2007), Applicant submits that none of Baginski, Choi, nor Faber, alone or in combination, disclose, teach or suggest, including reacting the metal layer including the metal with a reactant for forming a primary explosive layer as recited in independent claim 1.

For the reasons stated above, the claimed invention, and the invention as cited in independent claim 1, and related dependent claims 2-7 and 18-20, are fully patentable over the cited references.

II. Formal Matters and Conclusions

In view of the foregoing, Applicants submit that claims 1- 7 and 18-20, all the claims presently pending in the application, are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary.

Please charge any deficiencies and credit any overpayment to Attorney's Deposit Account Number 50-1114.

Respectfully submitted,

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Fredric J. Zimmerman
Registration No. 48, 747

Department of the Navy
Office of Counsel
3824 Strauss Ave., Suite 103
Indian Head, MD 20640-5152
(301) 744-5603